IN THE CLAIMS

1. (withdrawn) A method for fabricating a nozzle including at least one piece, said method comprising:

forming at least a portion of an exit aperture in at least one piece of the nozzle, wherein the at least a portion of the exit aperture has a first cross-sectional shape; and

forming at least a portion of an inlet aperture in the at least one piece of the nozzle, wherein the at least a portion of the inlet aperture has a second cross-sectional shape, and such that a fluid passage formed between the inlet and exit apertures transitions gradually between the first cross-sectional shape and the second cross-sectional shape.

2. (withdrawn) A method in accordance with Claim 1 wherein forming the at least a portion of the exit aperture further comprises forming at least a portion of the exit aperture using an electro-discharge machining process.

3. (withdrawn) A method in accordance with Claim 1 wherein forming at least a portion of an inlet aperture further comprises forming the fluid passage using an electro-discharge machining process.

4. (withdrawn) A method in accordance with Claim 1 wherein forming the at least a portion of the exit aperture further comprises extending a portion of the exit aperture along an axial length of the nozzle such that the second cross-sectional shape remains substantially constant for a distance.

5. (withdrawn) A method in accordance with Claim 1 further comprising forming a starter hole within a piece of stock material prior to forming the at least a portion of the exit aperture.

6. (withdrawn) A method in accordance with Claim 1 further comprising coupling a first piece of the nozzle to a second piece of the nozzle.

7. (currently amended) A nozzle, comprising:

a body comprising an inlet end, an outlet end, and an interior wall defining a fluid passage extending therebetween,

said fluid passage comprising a first portion, a second portion and an intermediate portion extending therebetween,

said first portion extending from said inlet end to said intermediate portion and comprising a first substantially constant cross-sectional shape, and

said second portion extending from said intermediate portion to said outlet end and comprising a substantially constant second cross-sectional shape that is ~~non-rectangular~~ different than said first cross-sectional shape, said second cross-sectional shape selected such that fluid discharged from said second portion has a pre-selected cross-sectional discharge pattern.

8. (currently amended) A nozzle in accordance with Claim 7 wherein a cross-sectional shape of said ~~fluid passage transitions~~ intermediate portion tapers gradually from said first ~~cross-sectional~~ cross-sectional shape to said second ~~cross sectional~~ cross-sectional shape.

9. (currently amended) A nozzle in accordance with Claim 7 ~~wherein said fluid passage comprises a first portion having said first cross-sectional shape and said fluid passage comprises a second portion having said second cross-sectional shape,~~ wherein said second portion extends an axial distance from said body outlet end towards said first portion.

10. (original) A nozzle in accordance with Claim 7 wherein said fluid passage is fabricated using a machining process.

11. (original) A nozzle in accordance with Claim 10 wherein said fluid passage is formed using an electro-discharge machining process.

12. (original) A nozzle in accordance with Claim 7 wherein said nozzle is formed from at least one block of stock material.

13. (currently amended) A machining system for machining a component, said machining system comprising:

a tool having an exterior shape for use in machining at least a portion of ~~the~~ an exterior shape of the component;

a component mounting fixture that holds the component during machining; and

a coolant flow nozzle comprising a body, a first end, a second end, and an interior wall defining a fluid passage extending therebetween, ~~a~~ said fluid passage comprising a first portion, a second portion and an intermediate portion extending therebetween, said first portion ~~of said fluid passage~~ extending from said first end to said intermediate portion and having a first cross-sectional shape, ~~and a~~ said second portion ~~of said fluid passage~~ extending from said intermediate portion to said second end and having a second cross-sectional shape that is different than said first cross-sectional shape, said second cross-sectional shape selected so that fluid discharged from said second portion has a pre-selected cross-sectional discharge pattern.

14. (currently amended) A machining system in accordance with Claim 13 wherein ~~said~~ a cross-sectional shape of said ~~flow nozzle fluid passage transitions~~ intermediate portion tapers gradually from said first ~~cross-sectional~~ cross-sectional shape to said second ~~cross-sectional~~ cross-sectional shape.

15. (original) A machining system in accordance with Claim 13 wherein said flow nozzle second cross-sectional shape extends an axial distance at least partway between said nozzle first and second portions.

16. (original) A machining system in accordance with Claim 13 wherein said coolant flow nozzle fluid passage is formed using a machining process.

17. (original) A machining system in accordance with Claim 13 wherein said coolant flow nozzle is formed from a single block material.

18. (original) A machining system in accordance with Claim 13 wherein said coolant flow nozzle is fabricated from a plurality of blocks of material.

19. (original) A machining system in accordance with Claim 13 wherein said coolant flow nozzle is removably coupled to a movable structure that

holds the tool during machining such that the nozzle moves in tandem with the tool during machining of the component.

20. (original) A machining system in accordance with Claim 13 further comprising a second coolant flow nozzle positioned to discharge cooling fluid towards the component during machining.